|   | INTERNATIONAL SEARCH REPORT  |                      | International application No. |  |
|---|--|----------------------|-------------------------------|--|
|   |  |                      |                               |  |
| A. CLASSIFI<br>Int.Cl   | CATION OF SUBJECT MATTER  7 H01Q9/42, 1/38, 5/01, 9/38   | PCI/UP               | 2005/004793                   |  |
|   | ternational Patent Classification (IPC) or to both national classification and IP                                      |                      |                               |  |
| B. FIELDS SI  |  |                      |                               |  |
| int.Ci  | mentation searched (classification system followed by classification symbols)  H01Q9/42, 1/38, 5/01, 9/38, 9/46, 9/40  |                      |                               |  |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2005 Kokai Jitsuyo Shinan Koho 1971-2005 Toroku Jitsuyo Shinan Koho 1994-2005 |  |                      | 1996-2005<br>1994-2005        |  |
|   | pase consulted during the international search (name of data base and, where p   | racticable, search t | erms used)                    |  |
| C. DOCUMEN  | VTS CONSIDERED TO BE RELEVANT  |                      |                               |  |
| Category*   | Citation of document, with indication, where appropriate, of the releva  | nt passages          | Relevant to claim No.         |  |
| Y   | JP 2003-218623 A (NGK Insulators, Ltd.), 1-1<br>31 July, 2003 (31.07.03),<br>Par. No. [0037]; Fig. 9<br>(Family: none) |                      | 1-12                          |  |
| Y   | JP 2003-69331 A (Hitachi Metals, Ltd.)   |                      | 1-12                          |  |

|   |   | Par. No. [0037]; Fig. 9 (Family: none)  |      |
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|   | Y | JP 2002-314322 A (The Furukawa Electric<br>Co., Ltd.),<br>25 October, 2002 (25.10.02),<br>Fig. 1<br>& US 2002-0149538 A1 & EP 001231669 A1<br>& CN 001369928 A & TW 000513827 B | 2-10 |
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| ×   | Further documents are listed in the continuation of Box C.  | See patent family annex.  |  |  |  |
| * "A" "E" "L" "O" "P"   | Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier application or patent but published on or after the international filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed | <ul> <li>the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination</li> </ul> |  |  |  |
| Date of the actual completion of the international search 09 May, 2005 (09.05.05) |   | Date of mailing of the international search report 24 May, 2005 (24.05.05)  |  |  |  |
| Name and mailing address of the ISA/ Japanese Patent Office                       |   | Authorized officer  |  |  |  |
| Facsimile No. Form PCT/ISA/210 (second sheet) (January 2004)                      |   | Telephone No.   |  |  |  |
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